

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code _____

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 2 Resource name(s) or number (assigned by recorder) N-221A

P1. Other Identifier: Life Sciences Division, 20-G Centrifuge, Human Powered Centrifuge, Biosatellite Centrifuge

***P2. Location:** ☒ Not for Publication ☐ Unrestricted

***a. County** Santa Clara

***b. USGS 7.5' Quad** San Francisco North, Calif. **Date:** 1995

***c. Address** 700 De France Avenue

City Moffett Field

Zip 94035

***e. Other Locational Data:**

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

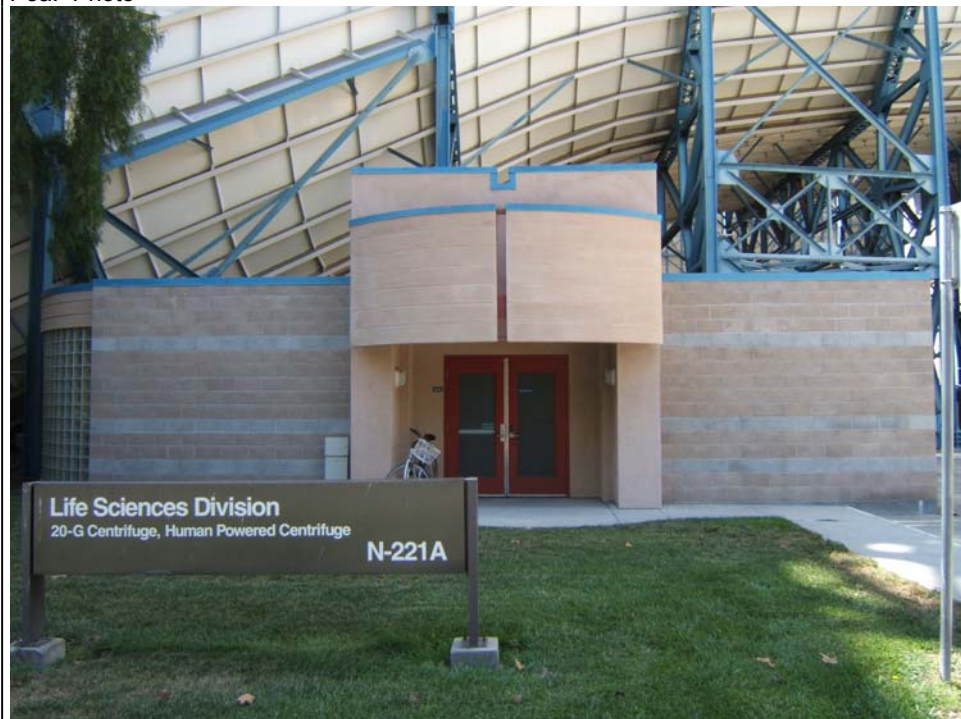
Building N-221A is an irregularly shaped one-story building located under N-221, the 40'x80' wind tunnel. The front (east) of the building is constructed of split-faced cmu in a running bond pattern. The cmu is a sand color with three accent courses of gray cmu. This façade is flat except for the entrance, which steps out and has a deep circular overhang, accentuating the entry. The south side of the building has a glass block wall. The rest of the building is more utilitarian and contains the circular centrifuge. It is constructed of exposed cmu block in a stack pattern. This building has been used as a centrifuge to test the effect of high gravity loads on biosystems and aircraft escape systems for humans. It is 6,440 sq. ft. This building appears to be in good condition

See Continuation Sheet for technical description.

***P3b. Resource Attributes:** (list attributes and codes) HP39— Other, Laboratory & Research

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other

P5a. Photo



P5b. Photo: (view and date)
View of East Façade, (8/12/05)

***P6. Date Constructed/Age and Sources:** 1964

***P7. Owner and Address:**
United States of America as represented by National Aeronautics and Space Administration (NASA)

***P8. Recorded by:**
Page & Turnbull, Inc.
724 Pine Street
San Francisco, CA 94108

***P9. Date Recorded:** 08/12/05

***P10. Survey Type:**
Reconnaissance

***P11. Report Citation:**
National Aeronautics and Space Administration, *Technical Facilities Catalog*, Volume 1, publication NHB 8800.5A (1), October 1974.; Technical Information Division, Ames Research Center, *Ames*

Research Facilities Summary, 1974.; Donald D. Baals and William R. Corliss, *Wind Tunnels of NASA*, NASA SP-440, 1981.

***Attachments:** ☒ None ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (list)

CONTINUATION SHEET

Primary # _____

HRI # _____

Trinomial _____

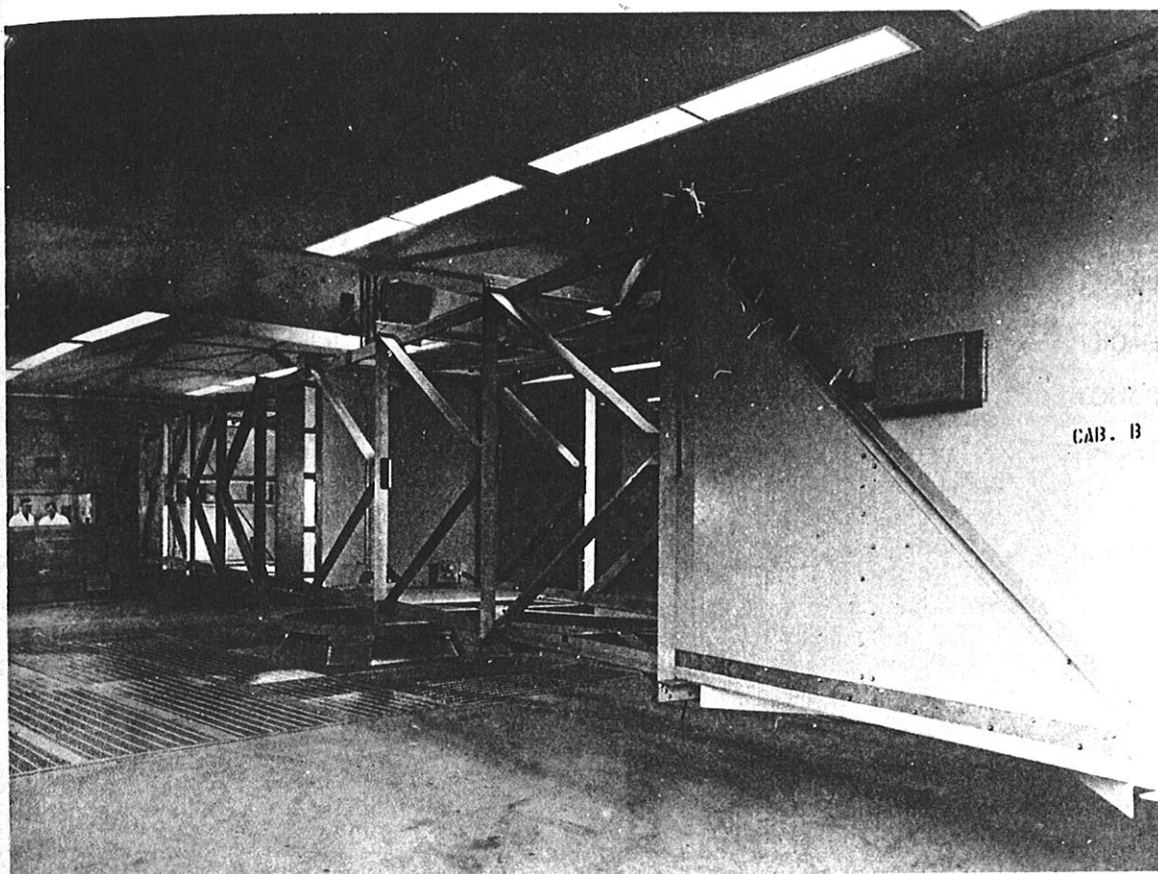
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Resource Name or # N-221a

*Recorded by Rich Sucre

*Date _____

☒ Continuation ☐ Update



DESCRIPTION

The centrifuge consists of a trusswork arm, about 60 ft long, which is supported on a vertical shaft at the center. The drive torque is applied through this shaft by means of an electric motor and gearbox. The control system includes provision for both manually controlled and programmed acceleration profiles. Facilities are provided for powering, controlling, and instrumenting experiments, which may be mounted at either or both ends of the rotating arm. A control room overlooking the centrifuge area is located nearby. There is also sufficient area for support personnel and equipment. The capacity is 1200 lb or 16,000 g-lb at each end. The simulator has been man-rated for 12.5 g.

Motion Generated (Arm)	Displacement	Acceleration	Velocity
Angular	Unlimited	—	5 rad/sec, max 0.012 rad/sec, min
Radial	—	20 g 12.5 g max, man-rated	—
Radial Onset	—	2 g/sec	—